

REMARKS

The office action of August 6, 2003 has been reviewed and its contents carefully noted. Reconsideration of this case, as amended, is requested. Claims 1 through 7 remain in this case, claim 1 being amended by this response.

Objections to the Claims

Claim 1 was objected to because of formalities. Claim 1 has been amended to fix the formalities, specifically "with a sides" was changed to "with sides" and "the guide link" was changed to "the guide links." "Leading edge" was also corrected to --leading end-- in the last paragraph for consistency with the rest of the claim. The claim was also slightly reorganized for greater clarity, in that the sub-clause regarding the parts being fastened into a chain was simplified and moved into an earlier paragraph. Reconsideration and withdrawal of the objections are respectfully requested.

Rejection(s) under 35 U.S.C. §102

Claims 1, 2, 5, and 7 were rejected under 35 U.S.C. 102(b) as being anticipated by McIntosh (USPN 4,402,676). Applicant respectfully disagrees with the rejection.

Applicant's invention is a compression-type inverted tooth chain. That is, conventional chains, such as those in the McIntosh reference, transfer force by having the driving sprocket pull on the chain. Force is transferred from one link to the next, through the pins, by the tension of the chain. In contrast, Applicant's invention transfers force by pushing on the chain - that is, by compression of the guide links. This is a completely different type of chain, and McIntosh does not anticipate Applicant's invention.

Applicant's chain is comprised of a plurality of inner sprocket-engaging blocks and outer force-transmitting guide links, which are connected together by pins. When the chain engages the driving and driven sprockets, rotational force is transferred from the teeth of the driving sprocket to the teeth of the sprocket engaging blocks. The force is then transferred through the pins to the guide links, which are shaped such that when the guide links are aligned (as between the two sprockets) the leading end of each link contacts the trailing end of the next link. Claim 1

has been amended to make this distinction clear. The leading end of each guide link between the driving sprocket and the driven sprocket transfers force by pushing on the trailing end of the next guide link, until the force is transferred to the sprocket engaging blocks engaged with the driven sprocket.

McIntosh, as noted above, is a conventional tension chain which cannot transfer force by compression since the outside links are not in contact with one another - see figure 1 of McIntosh.

Therefore, it is respectfully suggested that the rejection of independent claim 1 as being anticipated by McIntosh is overcome. Dependent claims 2, 5, and 7, being dependent upon and further limiting independent claim 1, should also be allowable for that reason, as well as for the additional recitations they contain. Reconsideration and withdrawal of the rejection are respectfully requested.

Rejection(s) under 35 U.S.C. §103

Claim 3 was rejected under 35 U.S.C. 103(a) as being unpatentable over McIntosh in view of Henderson (USPN 4,595,385). Applicant respectfully disagrees.

The arguments about the McIntosh reference, above, are repeated here by reference. McIntosh is not a compression chain, and the guide links do not transmit force from one link to the next by contact of the guide links as required by claim 1 as amended.

Henderson discloses a V-belt for continuously variable transmissions, where the "V" is formed by transverse elements carried by a toothed flexible belt. The belt is not driven by sprockets contacting inverted teeth, but rather by the sheaves pressing on the sides of the transverse elements. There are no toothed links or guide links, therefore there could not be any pins running between pairs of guide links as required by the present claim 3.

The addition of Henderson to McIntosh would result in the conventional tension chain with added outer band of McIntosh, having Henderson's upper pins to retain the band. Therefore, the combination of McIntosh and Henderson does not result in Applicant's invention. Reconsideration and withdrawal of the rejection is respectfully requested.

Claim 4 was rejected under 35 U.S.C. 103 (a) as being unpatentable over McIntosh in view of Mott (USPN 5,993,345).

The arguments about the McIntosh reference, above, are repeated here by reference. McIntosh is not a compression chain, and the guide links do not transmit force from one link to the next by contact of the guide links as required by claim 1 as amended.

Mott is a compression chain, which uses two laminated retaining bands (106) to retain the load blocks. This is not uncommon in compression-type CVT belts. However, Mott does not have toothed links or guide links of the form required by claim 1, as amended.

The combination of McIntosh and Mott would result in the tension chain of McIntosh, in which retaining band (30) is laminated instead of a single piece. Therefore, it does not result in Applicant's invention. Reconsideration and withdrawal of the rejection is respectfully requested.

Claim 6 was rejected under 35 U.S.C. 103 (a) as being unpatentable over McIntosh in view of Bonnel (USPN 576,719).

The arguments about the McIntosh reference, above, are repeated here by reference. McIntosh is not a compression chain, and the guide links do not transmit force from one link to the next by contact of the guide links as required by claim 1 as amended.

Bonnel is compression chain, which has inner guide links without teeth and outer toothed links (with the teeth pointing outwards) which are shaped to contact each other and transmit force by compression. Bonnel does not have a retaining band - the chain runs in channel H, which holds it straight under cover I.

McIntosh and Bonnel are thus two very different (one might say contradictory) products - without a channel vs. running in a channel, a tension chain vs. a compression chain, inward pointing toothed links in the middle of the chain vs. outward pointing toothed links on the outside of the chain, internal guide links vs. external guide links, with a band vs. without a band. Absent Applicant's disclosure, then, there is no teaching or suggestion as to how these disparate chains might be combined to result in Applicant's invention.

Reconsideration and withdrawal of the rejection is respectfully requested.

Conclusion

Applicant believes the claims, as amended, are patentable over the prior art, and that this case is now in condition for allowance of all claims therein. Such action is thus respectfully requested. If the Examiner disagrees, or believes for any other reason that direct contact with Applicants' attorney would advance the prosecution of the case to finality, he is invited to telephone the undersigned at the number given below.

"Recognizing that Internet communications are not secured, I hereby authorize the PTO to communicate with me concerning any subject matter of this application by electronic mail. I understand that a copy of these communications will be made of record in the application file."

Respectfully Submitted:

Mott et al.

By: 

Lynda Wood, Reg. No. 53,791
Attorney for Applicant

BROWN & MICHAELS, P.C.
400 M&T Bank Building - 118 N. Tioga St.
Ithaca, NY 14850
(607) 256-2000 • (607) 256-3628 (fax)
e-mail: lwood@bpmlegal.com
Dated: September 10, 2003